## Myotis septentrionalis (Northern Long-eared Myotis)

Report Date: January 13, 2016

**Priority 1 Species of Greatest Conservation Need (SGCN)** 

Class: Mammalia (Mammals)
Order: Chiroptera (Bats)

Family: Vespertilionidae (Common Bats)

General comments:

This species hibernates in large groups in caves and mines during the winter. Since the discovery of White-nose Syndrome (WNS) in 2006 in northeastern United States bat populations for species that co-hibernate with northern long-eared myotis have decreased more than 90 percent. Specific population decline information for northern long-eared myotis is lacking however, WNS does affect northern long-eared myotis. It is predicted that WNS could extirpate cave/ mine hibernating bats from the northeastern United States. Population monitoring should be considered in Maine.

### **Species Conservation Range Maps for Northern Long-eared Myotis:**

Town Map: <u>Myotis septentrionalis Towns.pdf</u>
Subwatershed Map: <u>Myotis septentrionalis HUC12.pdf</u>

### **SGCN Priority Ranking - Designation Criteria:**

### **Risk of Extirpation:**

Maine Status: **Endangered** Federal Status: **Threatened** 

### State Special Concern or NMFS Species of Concern: NA

#### **Recent Significant Declines:**

Northern Long-eared Myotis is currently undergoing steep population declines, which has already led to, or if unchecked is likely to lead to, local extinction and/or range contraction.

Notes:

95% decline in winter hibernating bats from pre-WNS counts in Maine

**Regional Endemic: NA** 

**High Regional Conservation Priority:** 

NatureServe: Global Rank: G2

**High Climate Change Vulnerability: NA** 

Understudied rare taxa: NA

**Historical: NA** 

**Culturally Significant: NA** 

### **Habitats Assigned to Northern Long-eared Myotis:**

### Formation Name Boreal Upland Forest

Macrogroup Name Boreal Upland Forest

**Habitat System Name:** Acadian Low Elevation Spruce-Fir-Hardwood Forest widespread bat presnt in a variety of Maine habitats: presumed occurrence

**Habitat System Name:** Acadian Sub-boreal Spruce Flat **Notes:** "secondary habitat" for this (formerly) widespread bat presnt in a variety of Maine habitats: documented occurrence

**Habitat System Name:** Acadian-Appalachian Montane Spr-Fir-Hwd Forest **Notes:** "secondary habitat" for this (formerly) widespread bat presnt in a variety of Maine habitats: presumed occurrence

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Formation Name Developed

Macrogroup Name Extractive

Habitat System Name: Subsurface Mines & Caves \*\*Primary Habitat\*\* Notes: "primary habitat" for hibernacula

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within its range: documented occurrence

Formation Name Northeastern Upland Forest

Macrogroup Name Northern Hardwood & Conifer

Habitat System Name: Appalachian (Hemlock)-Northern Hardwood Forest Notes: "secondary habitat" for this (formerly)

widespread bat presnt in a variety of Maine habitats: presumed occurrence

Habitat System Name: Laurentian-Acadian Northern Hardwoods Forest Notes: "secondary habitat" for this (formerly)

widespread bat presnt in a variety of Maine habitats: presumed occurrence

Habitat System Name: Laurentian-Acadian Pine-Hemlock-Hardwood Forest Notes: "secondary habitat" for this

(formerly) widespread bat presnt in a variety of Maine habitats: presumed occurrence

Habitat System Name: Northeastern Coastal and Interior Pine-Oak Forest Notes: "secondary habitat" for upland forests

within its range: presumed occurrence

### **Stressors Assigned to Northern Long-eared Myotis:**

Stressor Priority Level based on Severity and Actionability

	Moderate Severity	High Severity
Highly Actionable	Medium-High	High
Moderately Actionable	Medium	Medium-High
Actionable with Difficulty	Low	Low

IUCN Level 1 Threat Energy Production and Mining

IUCN Level 2 Threat: Renewable Energy

Severity: Moderate Severity Actionability: Highly actionable

**Notes:** While cave bats are considered less susceptable to wind turbine collision than tree bats, potentially additive

mortality events, especially in the aftermath of WNS, has been observed.

IUCN Level 1 Threat Human Intrusions and Disturbance

IUCN Level 2 Threat: Recreational Activities

**Severity:** Moderate Severity **Actionability:** Highly actionable **Notes:** Cavers can spread WNS if they to not follow disinfection protocols.

**IUCN Level 1 Threat** Other Options

IUCN Level 2 Threat: Lack of knowledge

**Severity:** Moderate Severity **Actionability:** Highly actionable

Notes: Information related to location and types of hibernacula used, use of managed forest, and the location and

selection of maternity roosts in Maine is unknown at this time.

IUCN Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases

IUCN Level 2 Threat: Invasive Non-native-Alien Species-Diseases

**Severity:** Severe **Actionability:** Actionable with difficulty

Notes: White-nose syndrome (WNS) is a fungal disease that has caused the preceptious decline in most cave hibernating

bat species in the eastern half of the US.

### **Species Level Conservation Actions Assigned to Northern Long-eared Myotis:**

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None. Only species specific conservation actions that address high (red) or medium-high (orange) priority stressors are

summarized here.

#### **Guild Level Conservation Actions:**

This Species is currently not attributed to a guild.

### **Broad Taxonomic Group Conservation Actions:**

Relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-1.

### **Habitat Based Conservation Actions:**

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.